What Is Claimed Is:

1. A movable rack system comprising a plurality of movable racks that travel freely back and forth along a travel path while being supported by a plurality of travel support devices, characterized in that:

out of the plurality of travel support devices, two travel support devices are positioned in opposite outside portions in a traverse direction to the travel path, each of the travel support devices including a rotation drive means, each of the travel support devices being a driven travel support device; and

each of the movable racks includes

travel amount detection means respectively detecting travel amounts of the driven travel support devices positioned in the opposite outside portions, and

a control means for controlling drive rotation amounts of the rotation drive means, based on detection results by the travel amount detection means,

wherein the control means performs a movable rack attitude correcting control by using predicted values of the travel amounts of the driven travel support devices, when a deviation occurs in the travel amounts of the driven travel support devices respectively detected by the travel amount detection devices, so that the drive rotation amounts of the rotation drive means are correctively controlled to eliminate the deviation between the predicted values.

2. The movable rack system according to claim 1, characterized in that the control means controls the rotation drive means linked to the driven travel support device on a side where the travel amount is larger, to reduce the drive rotation amount of the rotation drive means.

3. The movable rack system according to claim 1, characterized in that the control means finds predicted

values for the travel amounts of the driven travel support devices, based on a time period elapsed immediately after the movable rack started traveling until the deviation between the travel amounts of the two driven travel support devices exceeds a prescribed travel amount, and on subsequent travel amounts of the driven travel support devices.

4. The movable rack system according to claim 3, characterized in that, as from a time when the deviation between travel amounts of the two driven travel support devices has exceeded a prescribed travel amount, the control means starts finding predicted values expected to stand after an elapse of a set time after a present actual time, and performs the movable rack attitude correcting control.

5. The movable rack system according to claim 1, characterized in that the control means correctively controls the drive rotation amounts of the rotation drive means to eliminate the deviation between travel amounts of the two driven travel support devices until the deviation exceeds a prescribed travel amount.

6. The movable rack system according to claim 1, characterized in that the control means performs the movable rack attitude correcting control, and, when the deviation between the predicted values becomes substantially zero, performs the corrective control of the drive rotation amounts of the rotation drive means to eliminate the deviation between travel amounts of the two driven travel support devices.

7. The movable rack system according to claim 1, characterized by further comprising:

a detectable member provided on a floor along the travel path, the detectable member allowing a vehicle to ride thereover;

a widthwise shift detection means provided in the movable rack, the detection means detecting a shift of the movable rack in the transverse direction to the travel path by detecting the detectable member; and

a movable rack widthwise shift correcting control function added to the control means, the function performing a movable rack widthwise shift correcting control to control the rotation drive means so that a value detected by the widthwise shift detection means does not diverge from a set value.

8. The movable rack system according to claim 7, characterized in that the control means performs the movable rack widthwise shift correcting control with priority over the movable rack attitude correcting control.

9. The movable rack system according to claim 7, characterized in that the detectable member is disposed between the two driven travel support devices positioned in the opposite outside portions, and along the travel path on a central portion of the floor.

10. The movable rack system according to claim 1, characterized in that, when the plurality of movable racks are made to travel, sequential travel command outputs are input, at set time intervals, to the control means of the movable racks.

11. The movable rack system according to claim 1, characterized in that a vector control inverter is used in the rotation drive means.

12. The movable rack system according to claim 1, characterized in that the travel amount detection means is a pulse encoder provided in the vicinity of the driven travel support device.

13. The movable rack system according to claim 12, characterized in that the control means performs the movable rack attitude correcting control when difference in count of pulses output from the pulse encoders of the two

driven travel support devices exceeds a pulse count, of which setting can be altered.

14. A movable rack system having a plurality of movable racks that travel freely back and forth along a travel path while being supported by a plurality of travel support devices, characterized in that:

out of the plurality of travel support devices, two travel support devices are positioned in opposite outside portions in a traverse direction to the travel path, each of the travel support devices including a rotation drive means, each of the travel support devices being a driven travel support device;

a detectable member allowing a vehicle to ride thereover is provided on a floor along the travel path; and

each of the movable racks includes

travel amount detection means respectively detecting travel amounts of the driven travel support devices in the opposite outside portions;

a widthwise shift detection means provided in the movable rack, the detection means detecting a shift of the movable rack in the transverse direction to the travel path by detecting the detectable member; and

a control means for controlling drive rotation amounts of the rotation drive means, based on the travel amounts of the driven travel support devices respectively detected by the travel amount detection means, performing a corrective control of the drive rotation amounts of the rotation drive means to eliminate a deviation between these travel amounts, and performing a movable rack widthwise shift correcting control for controlling the or each rotation drive means so that a value detected by the widthwise shift detection means does not diverge from a set value.

15. The movable rack system according to claim 14, characterized in that the control means controls the

rotation drive means linked to the driven travel support device on a side where the travel amount is larger, to reduce the drive rotation amount thereof.

16. The movable rack system according to claim 14, characterized in that

when a deviation between the travel amounts of the driven travel support devices respectively detected by the travel amount detection devices exceeds a prescribed travel amount,

the control means operates:

to find predicted values for the travel amounts of the driven travel support devices, based on a time period elapsed immediately after the movable rack started traveling until the deviation between the travel amounts of the two driven travel support devices exceeds a prescribed travel amount, and on subsequent travel amounts of the driven travel support devices; and

to perform a movable rack attitude correcting control to correctively control drive rotation amounts of the rotation drive means, to eliminate the deviation between the predicted values.

17. The movable rack system according to claim 16, characterized in that, as from a time when the deviation between the travel amounts of the two driven travel support devices has exceeded a prescribed travel amount, the control means starts finding predicted values expected to stand after an elapse of a set time after a present actual time, and performs the movable rack attitude correcting control.

18. The movable rack system according to claim 16, characterized in that the control means correctively controls drive rotation amounts of the rotation drive means to eliminate the deviation between the travel amounts of the two driven travel support devices, until the deviation

between the travel amounts exceeds a prescribed travel amount.

19. The movable rack system according to claim 16, characterized in that the control means performs the movable rack attitude correcting control, and, when a deviation between the predicted amounts becomes substantially zero, the control means correctively controls drive rotation amounts of the rotation drive means to eliminate the deviation between the travel amounts of the two driven travel support devices.

20. The movable rack system according to claim 16, characterized in that the control means performs the movable rack widthwise shift correcting control with priority over the movable rack attitude correcting control.

21. The movable rack system according to claim 14, characterized in that when the plurality of movable racks are made to travel, sequential travel command outputs are input, at set time intervals, to the control means of the movable racks.

22. The movable rack system according to claim 14, characterized in that a vector control inverter is used in the rotation drive means.

23. The movable rack system according to claim 14, characterized in that the travel amount detection means are pulse encoders provided in the vicinity of the driven travel support devices.

24. The movable rack system according to claim 23, characterized in that the control means performs the movable rack attitude correcting control when difference in count of pulses output from the pulse encoders of the two driven travel support devices exceeds a pulse count, of which setting can be altered.